

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In the Patent Application of:

DIANNE D. MUELLER ET AL.

Serial No.: 09/977,775

Filed: October 15, 2001

For: A REFRIGERATED OVEN

Group Art Unit: 3753

Examiner: Ciric, Ljiljana V.

**APPLICANTS' REPLY BRIEF TO EXAMINER'S ANSWER**  
**TO APPEAL BRIEF**

This is Applicants' Reply to the Examiner's Answer mailed September 19, 2007, pursuant to 37 C.F.R. §41.41, in support of Applicants' appeal of the Final Rejection of the Examiner, mailed March 25, 2005, of claims 1-11 and 14-20. Applicants requests that the appeal in this case be maintained.

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### **STATUS OF CLAIMS**

Claims 1-46 were in the application as filed. Claims 27-46 were cancelled without prejudice. Claims 1-11 and 14-20 are pending in the application and have been twice rejected by the Examiner. Claims 12, 13, and 21-26, which are presented in the Appendix, are pending in the application and have been objected to by the Examiner as dependent upon a rejected base claim. The Examiner's Answer mailed September 19, 2007, withdraws the rejection of claims 5-11, 14, 15, 19, and 20, and asserts that claims 5-15 and 19-26 are objected to as dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Accordingly, Applicants maintain the appeal of the rejection of claims 1-4 and 16-18.

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**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

In the Examiner's Answer mailed September 19, 2007, the Examiner asserted grounds of rejection of the claims on appeal, as follows:

- Claims 1-4 and 16-18 under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,497,276 to Clark et al. ("Clark"). Applicants disagree with the Examiner's assertion that the Clark reference anticipates claims 1-4 and 16-18.

### **REPLY TO EXAMINER'S ARGUMENTS**

#### **1. Rejection Under 35 U.S.C. §102(e)**

The claimed invention is not anticipated under §102 unless each and every element of the claimed invention is found in the prior art. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986). To anticipate, a single reference must teach each and every limitation of the claimed invention. *Eolas Technologies Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1335; 73 U.S.P.Q.2D (BNA) 1782 (Fed. Cir. 2005). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The Examiner has failed to adhere to these requirements with respect to claims 1-4 and 16-20. Thus, the anticipation rejection of claims 1-4 and 16-20 should be overturned.

#### **Claims 1-4**

Claim 1, in relevant part, expressly calls for a module comprising a compressor, a condenser, and an evaporator, all mounted to a base along with an insulated housing overlying the evaporator to thermally isolate the evaporator from the condenser. Clark does not disclose such a module and, as such, it does not anticipate claim 1.

Clark discloses a combined refrigerator-oven 20 comprising a drawer 68 slidably mounted below a cooking chamber 28. The drawer 68 houses a compressor 76, an evaporator 78, and an expansion valve 79 of a refrigeration unit 70. It does not house a condenser, a critical component of a closed-loop refrigeration system. As illustrated in Figure 3 of Clark, the condenser 90 of the refrigeration unit 70 is mounted to the exterior of the back wall 26 of the refrigerator-oven 20. *Clark*, col. 4, ln. 29-34. Clark discloses that the drawer 68 can be slid forward from beneath the chamber 28. *Ibid.*, col. 3, ln. 54 – col. 4, ln. 9. Thus, the condenser 90 must be fluidly connected to the refrigeration components stored in the drawer 68 by flexible,

expandable conduits, otherwise the drawer 68 could not be moved with the compressor 76, evaporator 78, and expansion valve 79 installed therein.

Clark does not refer in any way to a module. Clark refers to the compressor 76, evaporator 78, expansion valve 79, and condenser 90 as a refrigeration unit. The Examiner attempts to circumvent the absence of a module in Clark by asserting without support that “a module is basically a unit.” *Answer*, pg. 4, ln. 16. However, calling a module a unit does not make it so.

A module is “One of a series of production units or component parts that are standardized to facilitate assembly or replacement and are usu. prefabricated as self-contained structures.” *The Oxford English Dictionary*, 2d Ed., Clarendon Press (1991). A unit is “A piece of (esp. storage) furniture or equipment which may be fitted with other pieces to form a larger system, or which is itself composed of smaller complementary parts.” *Ibid*. It is clear that “module” connotes standardization, prefabrication, and ease of assembly or replacement. One module can be readily substituted for another in an assembly because all such modules are identical, and configured to be readily removed and reinstalled in the assembly. “Unit” does not have this connotation. A “unit” is simply a part of a larger assembly, and can itself comprise several parts. A “unit” is not by definition standardized, prefabricated, or easily incorporated into and replaced in an assembly. The Examiner’s attempt to equate “unit,” which is all that Clark discloses, with a “module” as called for in claim 1 is arbitrary and contrary to a conventional understanding of the scope of each term.

The definition of “module” is precisely the concept employed in claim 1 and described in the specification. The Description of the Preferred Embodiment explains the “modularity” of the refrigeration module both in terms of the arrangement of the individual components comprising the module, as well as the manner in which the module interrelates with the rest of the appliance. The compressor, condenser, and evaporator are mounted on a movable base to form an integrated unit, which can be easily inserted into and removed from the refrigeration unit chamber to

simplify the installation and maintenance of the modular refrigeration unit. This simplified installation and maintenance is possible because the air flow passageways are the only fluid passageways that must be broken when the modular refrigeration unit is removed from the refrigeration unit chamber. No refrigerant lines need be severed because the entire refrigerant system is self-contained on the movable base in the refrigeration unit chamber.

As discussed in Applicants' Appeal Brief, the Clark refrigeration system is not in the form of a module. Claim 1 expressly calls for the refrigeration system to be a module. Claim 1 expressly requires that the compressor, the evaporator, and the condenser all be mounted on a base to form a module that fits entirely within the refrigeration module chamber. Because Clark does not disclose the claimed modular refrigeration system of claim 1, Clark does not disclose "each and every limitation" of claim 1, and claim 1 is thus not anticipated by Clark.

The Examiner asserts that "claim 1 as written does not require that the compressor, the condenser, and the evaporator all be directly mounted to a single base." This is patently false. Claim 1 expressly calls for "a refrigeration module comprising a compressor, condenser, evaporator, and base on which the compressor, condenser, and evaporator are mounted to form a module." While claim 1 does not include the term "directly," that term is redundant. The description and the drawings clearly disclose the compressor, condenser, and evaporator all directly mounted to the base. Claim 1 expressly calls for the compressor, the evaporator, and the condenser be mounted on the base. As previously discussed, Clark does not show the condenser mounted to a base to which the compressor and evaporator are also mounted. The condenser in Clark is mounted to the rear wall of the stove. Thus, this limitation of claim 1 is not disclosed in Clark.

The Examiner also asserts that Clark shows that the condenser and the evaporator are connected to and mounted to the compressor (and thus also to its base) via interconnecting pipes as shown in Figure 3 of Clark. The Examiner further asserts that claim 1 can be interpreted as reading on the Clark refrigeration unit because "claims in a pending application must be

interpreted broadly, and given at least the broad interpretation of the claims which only require that the condenser, evaporator, and compressor are all at least indirectly connected or mounted to the same base. This is not only an incorrect statement of the law, it is contrary to the clear language of claim 1.

"During examination, the patent application claims are to be given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 U.S.P.Q. 2d 1664, 1667 (Fed. Cir. 2000). Furthermore, "this interpretation must be consistent with the interpretation those skilled in the art would reach." *In re Cortright*, 165 F.3d 1353, 1358, 49 U.S.P.Q. 2d 1464, 1467 (Fed. Cir. 1999). The Examiner's expansion of claim 1 is inconsistent with this standard. The Examiner's interpretation is not reasonable, it is not consistent with the specification, and it is not an interpretation that would be reached by a person skilled in the art.

The Examiner's interpretation is unreasonable because it does not simply broaden the scope of a term, it completely alters the explicitly described structure of the condenser, evaporator, and compressor mounted to the base. A refrigeration unit in which the condenser, evaporator, and compressor are indirectly connected or mounted to the base is an entirely different structure than that disclosed in the specification and drawings, and called for in claim 1. There is nothing in the specification that indicates an indirect connection of the condenser, evaporator, or compressor to the base. These components are all described and illustrated as mounted directly to the base.

Moreover, a person skilled in the art would not understand the language "a compressor, condenser, evaporator, and base on which the compressor, condenser, and evaporator are mounted to form a module" to encompass an indirect connection or mounting. A person skilled in the art, considering the specification, would interpret claim 1 to call for a condenser, evaporator, and compressor mounted directly to the base.

The specification states:

Referring to Figs. 5-8, the modular refrigeration unit 20 comprises a base 120 **on which are mounted a compressor 122, condenser assembly 124, an evaporator assembly 126**, and a dual-blade fan 128, which is shared by the condenser assembly 124 and evaporator assembly 126. **Since all of the components for the modular refrigeration unit 20 are mounted on the base 120**, the modular refrigeration unit 20 is easily slid into and out of the refrigeration unit chamber 16 to simplify the installation and maintenance of the modular refrigeration unit 20. *Application, para. [0057]; (emphasis added).*

\* \* \*

The condenser assembly 124 comprises a condenser 142 and fan shield 144, which includes a fan opening 148 through which passes the condenser fan blade 130. **Both of the condenser 142 and fan shield 144 are mounted to the base 120 by heat conductive spacers, such as aluminum spacers 146**, which conduct the heat from the condenser 142 to the base 120. Since the condenser 142 rejects a substantial amount of heat during the refrigeration cycle, the heat is immediately conducted to the base 120, including the evaporator pan 134, to aid in the evaporation of any water in the evaporator pan 134. *Application, para. [0062]; (emphasis added).*

The specification thus expressly discloses the condenser mounted directly to the base. A person skilled in the art would interpret claim 1 in light of the specification to call for a condenser, evaporator, and compressor mounted directly to the base.

There is nothing in claim 1 to suggest anything other than a direct mounting. For example, claim 1 calls for a base "on which" the compressor, condenser, and evaporator are mounted. This clearly indicates that each of these components is on the base and, thus, directly



connected to or mounted to the base. Clark shows the condenser mounted to the rear wall of the oven. The evaporator and compressor are mounted to the floor of the drawer. The condenser is nowhere near the floor of the drawer. It is connected to the evaporator and compressor through refrigerant lines. This does not equate to the condenser being mounted to the floor of the drawer. The Examiner's interpretation is unreasonable, not consistent with the specification, and is not an interpretation that would be reached by a person skilled in the art. The Examiner's assertion that claim 1 should be interpreted to include an indirect mounting of the condenser to the base is completely unsupportable, and cannot be sustained.

Claim 1 is further not anticipated by Clark in that claim 1 expressly calls for the refrigeration module to include an insulated housing overlying the evaporator to thermally isolate the evaporator from the condenser. Clark does not disclose such an insulated housing. Nowhere in Clark is there any mention of an insulated housing for the evaporator. The only conceivable housing of any type is the drawer 68, and there is no mention of the drawer 68 being insulated.

The Examiner asserts that "as broadly interpreted, the corresponding limitations in claim 1 merely require that the evaporator be contained within a housing which is thermally insulated in a general and non-specific manner so as to thermally isolate the evaporator from the condenser.... Thus, a housing may be deemed as being an insulated housing (and thus meet the requirements of the claims) if it (a) is surrounded on the inside or outside by an ambient inherently insulated material, such as air; or (b) is made of any material which is not a perfect conductor; or, (c) specifically contains thermal insulation." *Answer, p. 6, ln. 2-9*. The Examiner asserts that air surrounding the evaporator satisfies this limitation of claim 1. Again, the Examiner erroneously expands the scope of claim 1.

Claim 1 calls for "an insulated housing overlying the evaporator." Thus, claim 1 calls for a housing, which must be insulated, and which must overlie the evaporator. If the evaporator of Clark, identified as 78, includes a housing, nothing in Clark indicates that the housing is insulated. Thus, the housing must be the drawer 68. If the drawer 68 comprises the housing,

then Clark fails to disclose any insulation between the sides of the drawer 68 and the evaporator 78. However, the Examiner asserts that air is an insulator. Nevertheless, even with air as the insulator, Clark does not anticipate claim 1.

It is clear that the drawer 68 of Clark can be opened. When the drawer 68 is opened, the air no longer is an insulator because the interior of the drawer is open to the ambient environment, and the air escapes the interior of the drawer 68 and loses whatever insulative value it may have had. Furthermore, with the drawer 68 open, the "housing" no longer overlies the evaporator because the drawer is upwardly open. Thus, at most Clark would disclose an insulated housing overlying the evaporator only when the drawer is in the closed configuration. This limitation of claim 1 of an insulated housing overlying the evaporator would not be met when the drawer is opened.

The Examiner's interpretation is an unreasonable interpretation of claim 1. Claim 1 cannot be interpreted to have one meaning when the housing is in an open configuration, and another meaning when the housing is in a closed configuration. Such an interpretation is not what a person skilled in the art would reach. It is also not what a person skilled in the art would interpret as overlying the evaporator. This unreasonably expansive interpretation cannot be sustained.

Finally, the Examiner asserts with respect to claim 1 "nor does it require that all of these elements which form the refrigeration module be mounted or be enclosed within a single housing of any sort." This assertion is irrelevant, and does not support the Examiner's rejection. Claim 1 expressly calls for "an insulated housing overlying the evaporator to thermally isolate the evaporator from the condenser." Thus, whether the refrigeration unit of Clark is enclosed within a single housing is not at issue.

As explained above, the refrigeration unit of Clark is not modular, the condenser of Clark is not mounted to a base that also mounts the compressor and the evaporator, and the evaporator

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of Clark does not have an insulating housing, as required by claim 1. Because these limitations of claim 1 are not disclosed in Clark, claim 1 is not anticipated by Clark. The Examiner's Answer contains nothing reasonable that leads to any other conclusion.

### **CONCLUSION**

In view of the foregoing, it is submitted that the continuing rejection of claims 1-4 and 16-18 is improper and should not be sustained. Therefore, a reversal of the rejection of claims 1-4 and 16-18 is respectfully requested.

Respectfully submitted,

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Dated: November 14, 2007

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